

IN THE CLAIMS:

The text of all pending claims (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. When striketrough cannot easily be perceived, or when five or fewer characters are deleted, [[double brackets]] are used to show the deletion. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 5 and 16, and CANCEL claims 12 and 13 without prejudice or disclaimer in accordance with the following:

1. (Currently amended) A disk tray for a disk drive that slides in and out of the disk drive, the disk tray comprising two or more resonators mounted on a lower surface of the disk tray to selectively reduce noise of at least two predetermined frequency bands that correspond to dominant noise frequency bands above 200 Hz,

wherein each of the two or more resonators comprises:

a through hole penetrating the disk tray and operating as an entrance and a bottle neck of each resonator; and

a resonance container surrounding the through hole and having a predetermined volume, the predetermined frequency band being determined according to an area of a profile of the through hole, a length of the bottle neck of the through hole, and a volume of the resonance container, and

wherein ~~at least one of the resonators~~ each resonator further comprises an absorbing member filling the resonance container to selectively reduce noise of one of the at least two predetermined frequency bands, and

wherein the absorbing member is a porous material.

2. (Cancelled)

3. (Cancelled)

4. (Currently amended) The disk tray according to claim 1, wherein a bottom surface of at least one of the resonance containers is open.

5. (Currently amended) A disk drive comprising:

a disk tray that slides in and out of the disk drive and on which a disk is placed;

a disk driving portion rotating the disk at a predetermined speed;

a disk chucking apparatus holding the disk on the disk driving portion;
a data recording/reproducing unit recording data on the disk or reproducing data from the disk; and
two or more resonators installed on a lower surface of the disk tray to selectively reduce noise of at least two predetermined frequency bands that correspond to dominant noise frequency bands above 200 Hz,
wherein each of the two or more resonators comprises:
a through hole penetrating the disk tray and operating as an entrance and a bottle neck of each resonator; and
a resonance container surrounding the through hole and having a predetermined volume, the predetermined frequency band being determined according to an area of a profile of the through hole, a length of the bottle neck of the through hole, and a volume of the resonance container, and
wherein ~~at least one of the resonators~~each resonator further comprises an absorbing member filling the resonance container to selectively reduce noise of one of the at least two predetermined frequency bands, and
wherein the absorbing member is a porous material.

6. (Cancelled)

7. (Cancelled)

8. (Currently amended) The disk tray according to claim 5, wherein a bottom surface of at least one of the resonance containers is open.

9. (Currently amended) A resonator system having a plurality of resonators for a disk tray of a disk drive, each of the resonators comprising:

a through hole penetrating the disk tray and operating as an entrance and a bottle neck of the resonator; and

a resonance container surrounding the through hole and having a predetermined volume, the resonator being mounted on the disk tray to selectively reduce noise of a predetermined frequency band, the predetermined frequency band being determined according to an area of a profile of the through hole, a length of the bottle neck of the through hole, and the volume of the resonance container;

wherein each of the resonators converts sound energy to thermal energy to reduce a sound pressure level of a resonance frequency to selectively absorb a specific frequency;

wherein at least two of the resonators respectively reduce noise of two different frequency bands that correspond to dominant noise frequency bands above 200 Hz, and

wherein at least one of the resonators further comprises an absorbing member filling the resonance container to selectively reduce noise of a frequency band higher than the predetermined frequency band and the absorbing member is a sponge.

10. (Cancelled)

11. (Cancelled)

12. (Canceled)

13. (Canceled)

14. (Previously presented) A resonator for a disk tray of a disk drive, comprising:
a through hole penetrating the disk tray and operating as an entrance and a bottle neck of the resonator; and

a resonance container surrounding the through hole and having a predetermined volume, the resonator being mounted on the disk tray to selectively reduce noise of a predetermined frequency band, the predetermined frequency band being determined according to an area of a profile of the through hole, a length of the bottle neck of the through hole, and the volume of the resonance container;

wherein the resonator converts sound energy to thermal energy to reduce a sound pressure level of a resonance frequency to selectively absorb a specific frequency; and

wherein the resonator further comprises an absorbing member filling the resonance container to selectively reduce noise of a frequency band larger than the predetermined frequency band,

wherein the absorbing member is a porous member.

15. (Previously presented) The resonator according to claim 14, wherein the porous member is a sponge.

16. (Currently amended) A disk tray for a disk drive that slides in and out of the disk drive, the disk tray comprising two or more resonators mounted on a lower surface of the disk tray to selectively reduce at least two peak sound pressure levels that are above 200 Hz, wherein the peak sound pressure levels correspond to dominant noise frequency bands,

wherein at least one resonator is a Helmholtz resonator comprising an absorbing member filling a resonance container surrounding ~~the~~a through hole and having a predetermined volume, wherein the absorbing member is a porous material, the resonator being mounted on the disk tray to selectively reduce noise of a predetermined frequency band, the predetermined frequency band being determined according to an area of a profile of the through hole, a length of the bottle neck of the through hole, and the volume of the resonance container, and

wherein air in the bottle neck begins to resonate to cause interference that causes frequency cancellation for a frequency larger than the predetermined frequency band.